

Chapter 14

Switzerland: A Patchwork, Not (Yet) Including Honors

14.1 Education System

Switzerland spends an equivalent of around 11,000 euros per capita on education and training each year. This is the highest amount of all European countries. (OECD 2013)¹

Switzerland is a country with great diversity, multiple languages are spoken and different cultures co-exist. The standard of living is high and, as a politically neutral country which is not a member of the EU, it is an ideal location for international organizations (Box 14.1).

Switzerland has quite a unique form of state and national government. It is a confederation of 26 cantons, a kind of autonomous provinces, where many powers are decentralised. At the same time, Switzerland is known for its direct democracy. The Swiss people regularly decide on political subjects through a referendum. Multilingualism is an important subject in Switzerland. Four languages are officially recognized, but almost a quarter of the population is foreign and a large part of this group speaks yet another language at home. German is the main official language spoken, with 64.9 % of the population stating it as their main language. This is followed by French (22.6 %) and Italian (8.3 %) (Bundesamt für Statistik 2014²).

Cantons take decisions about their own education system, which leads to regional differences, for example in the types and duration of education and assessment systems. There are many cooperative bodies in which the cantons, schools or universities work together on education matters of policy and procedure. As a

¹The amount referred to is USD 14,922, this is calculated into euros using exchange rate on 9-7-2014. See also SERI 2013, p. 10. Only the United States spends a higher amount. This relates to 5.2 % of GDP in 2010, or 15.9 % of total government expenditure.

²Numbers are for 2012. People could indicate more languages as main language. The last official language, Romansh, is main language for 0.5 % of the population. Several foreign languages, including English at 4.6 %, are spoken as main language by more Swiss residents. See also Müller-Oppliger 2014.

Box 14.1: Switzerland – The Basics

- 8.0 million inhabitants
- Capital: Bern
- Confederation, 26 cantons
- Four languages: German, French, Italian, Romansh
- Liberal/Conservative/Social-democratic/Christian-democratic coalition in power

consequence, the Swiss education landscape is a complicated patchwork. The most important institutions are the Swiss Conference of Cantonal Ministers of Education,³ which sets guidelines and addresses the harmonization of education throughout the cantons; and the State Secretariat for Education, Research and Innovation (SERI), which is the federal government's specialised agency for national and international matters concerning education, research and innovation policy. The cantons and the national government cooperate on university matters in the Swiss University Conference.⁴ The higher education institutions are united in the Swiss Conference of Rectors of Higher Education Institutions, *swissuniversities*. (Box 14.2).⁵

Box 14.2: Education in Switzerland

- Administered mainly by cantons, each with own regulations
- Compulsory for at least 9 years (starting age differs per canton)
- Four to six years primary education, 3–5 years of lower secondary school
- Differentiation in academic and vocational education around age 15
- Universities and universities of applied sciences (*Fachhochschulen*) provide main types of higher education institutions
- Open access to higher education for everyone holding relevant diploma
- One in four students is foreign national
- Tuition fees at universities ranging from 1,000 to 4,000 Swiss francs (820–3,280 euros) per year
- Cantonal ministers responsible, Conference of Cantonal Ministers of Education (with chairman) for central matters

³Schweizerischen Konferenz der kantonalen Erziehungsdirektoren/Conférence suisse des directeurs cantonaux de l'instruction publique, EDK/CDIP.

⁴Schweizerischen Universitätskonferenz (SUK)/Conférence Universitaire Suisse (CUS).

⁵Until 2014, there were three separate Rector's Conferences: the Rectors' Conference of the Swiss Universities (CRUS), the Rectors' Conference of the Universities of Applied Sciences Switzerland (KFH) and the Swiss Conference of Rectors of Universities of Teacher Education (COHEP). At 1 January 2015, they have merged into the Swiss Conference of Rectors of Higher Education Institutions, *swissuniversities*.

The organization of primary and secondary education differs per canton, but differentiation is first made after lower secondary education, around the age of 15. Children can then go to academic or vocational education. The upper level of general secondary education is called baccalaureate school,⁶ ending with a baccalaureate giving access to university studies (Nuffic 2013).⁷ In Switzerland, a clear majority of young people attend vocational education and training (VET). There are dual-track VET programs of 3 or 4 years (apprenticeship) for some 230 professions. The Federal Vocational Baccalaureate entitles students to continue on to a university of applied sciences without sitting an examination. It can also give them access to a (tier-one) university if they take the 'Federal Vocational Baccalaureate – University' examination, also known as the 'University Aptitude Test'. The Federal Vocational Baccalaureate can be obtained either on a part-time basis, i.e. during the apprenticeship, or during an additional year of schooling after completion of the apprenticeship. It is always acquired in addition to the VET qualification⁸ (see Fig. 14.1).

Higher education in Switzerland consists of academic education and higher vocational education. In principle, everybody holding recognized upper-secondary level qualifications can enroll in higher education in Switzerland (SERI 2013, p. 4), although restricted entry numbers are set for some very popular studies such as medicine. Swiss HEIs enjoy great autonomy. As a result, study programs, entry level requirements and admission procedures vary a great deal (Nuffic 2013, p. 8).

The state secretariat distinguishes between tier-one universities and other institutes of higher education (SERI 2013; see Box 14.3). The tier-one universities are ten general universities and two federal technical universities (*Eidgenössische Technische Hochschulen*, ETHs). They stand in a long tradition (the first Swiss university was founded in Basel in 1460) and their quality is high. Both federal institutes of technology, especially the one in Zürich, score high on international rankings. ETH Zürich is in the top-20 of both the Times Higher Education World University Rankings and the Academic Ranking of World Universities 2013. As in Germany, academic research is not only carried out at universities but also at institutes. Examples include the Paul Scherrer Institute and the Swiss Federal Institute for Forest, Snow and Landscape Research. Switzerland also has several international research organizations within its borders, of which CERN (European Organization for Nuclear Research) based in Geneva is the most famous.

The universities of applied sciences were founded in the 1990s, mostly bringing existing institutes for higher vocational education in the cantons into a new, nationally

⁶Gymnasiale Maturitätsschulen/Lycées/Ecoles de Maturité Gymnasiale.

⁷Pupils take a final examination at different levels for different subjects: at *Grundlage* level for all core subjects, at *Schwerpunkt* level for one subject and at *Ergänzungs*-level for one subject. The final examination may also include an elective subject.

⁸Universities of applied sciences generally admit 'students with a Federal Vocational Baccalaureate and with vocational education and training, related to the chosen field of study and students with a federally recognised baccalaureate and at least one year's professional experience in which practical and theoretical professional skills were taught in a profession related to the field of study without additional conditions' (Eurypedia 2014, chapter 7.2.1).

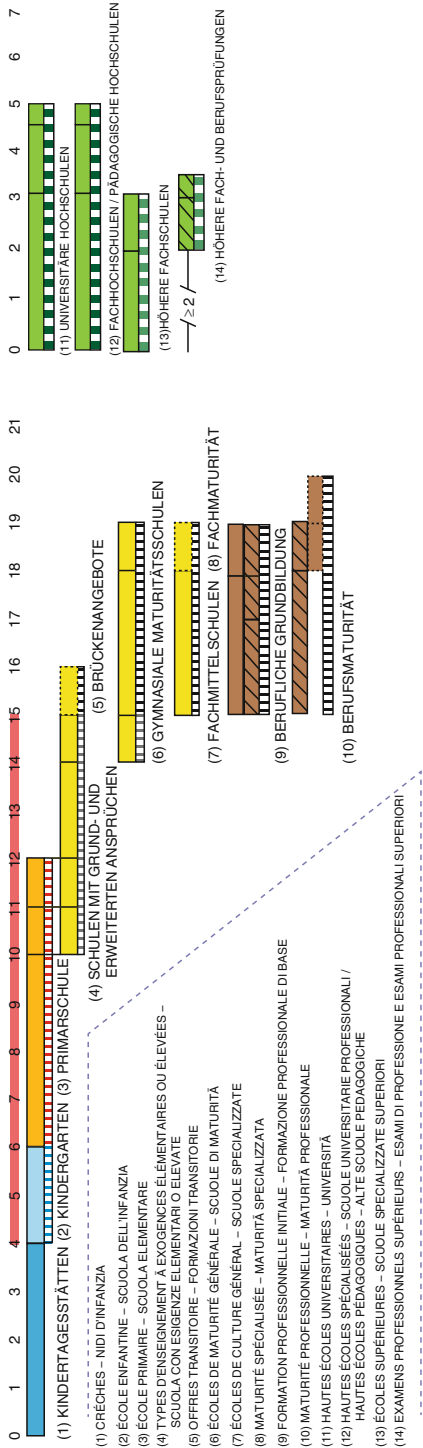


Fig. 14.1 Structure of the Swiss education system (Eurydice 2014) see Fig. 3.1b for standardized legend

Box 14.3: Higher Education Landscape

12 tier-one universities (10 general cantonal, 2 federal technical)
7 regional public universities of Applied Sciences (*Fachhochschulen*)
2 recognized private *Fachhochschulen*
14 teacher training institutes
A number of private universities operating outside Swiss education system

standardized system. They have established themselves relatively quickly as an inherent part of the Swiss education system (Swiss Universities 2014).

There are also quite a few private universities that operate outside the Swiss education system, for example Swiss campuses of American universities or specialized institutes. They often charge very high tuition fees. As these institutes do not fall under the Swiss system, we will not discuss them any further.

14.2 Culture and Policy Towards Excellence

We don't have reserves of oil or gold in the ground. What we have in Switzerland is our knowledge. This is our economic capital. (...) Everyone is convinced that we have to have expertise and excellence and that this is important for the future⁹

As Switzerland is such a patchwork of cultures, a general culture towards excellence is hard to describe. While there is a tradition of focusing on egalitarianism and equality, there is also a tradition of focusing on quality and individualism. So on the one hand the egalitarian tradition translates into a focus on measures to guarantee equality (IBE 2008, p. 3), while on the other hand the need to do something extra for talented and gifted children is felt quite strongly. Professor Müller-Oppliger describes this 'double view' as follows: 'What Swiss people don't like is to separate. We really are obliged to the idea of inclusive gifted education. Every school should have their program for gifted children, but we should not have special elite gymnasiums or elite universities. That is something that in Switzerland is refused mentally'.¹⁰

In primary and secondary school, incidental initiatives for gifted children date back to the 1970s, while more structured attention goes back to the 1990s. Mostly these first efforts were focused on giving extra opportunities within the classroom, or extra courses outside school hours. Despite the words of professor Müller-Oppliger, different special private schools were also founded, such as Talenta in Zürich which has existed since 1998. Most of these schools charge high tuition fees.¹¹

Since 2000, all 26 cantons 'have adopted their own policies to identify giftedness and to improve the support for high-end learners' (Müller-Oppliger 2014, p. 94).

⁹Personal communication Victor Müller-Oppliger, February 2014. See Appendix 4 for a full interview.

¹⁰Personal communication Victor Müller-Oppliger, February 2014. See Appendix 4 for a full interview.

¹¹A year at the Talenta primary school costs over 25,000 Swiss francs (more than 20,000 euros). See www.talenta.ch for more details.

There are a number of nationwide and regional networks focusing on ‘gifted education’ and the offer of extra opportunities has become larger in recent years (Box 14.4). One example is the private foundation *Stiftung für hochbegabte Kinder*. Among other initiatives, it awards the LISSA prizes. This prize offers official recognition to schools that offer good opportunities for talented and gifted children. So far, 43 schools at different levels have received this prize.¹²

Box 14.4: Key Players in Excellence

The following institutions can be considered key players in the field of excellence in education:

- State Secretariat for Education, Research and Innovation (SERI)
- Swiss Conference of Cantonal Ministers of Education
- Swiss Universities (Rector’s conference)
- Network for gifted education (*Netzwerk Begabungsförderung*)
- Association for highly gifted children (*Stiftung für hochbegabte Kinder*)
- Swiss Study Foundation (*Schweizerische Studienstiftung*)
- SwissGifted, association for gifted education

Schools often work with private foundations and/or universities to organise extra opportunities for talented children, as cantonal and confederal support is usually very limited. One of the nationwide programs for these children is *Schweizer Jugend forscht (SJF)*, founded in 1970 and aimed at talented secondary school students. It organises study weeks and competitions and hosts the biannual Swiss Talent Forum (last held in January 2014). In this 4-day congress, 80 talented 17- to 22-year-olds meet and brainstorm with leaders in business, science and politics. Every year, around 600 talents take part in SJF activities. It is sponsored by private donors and a large number of companies (Schweizer Jugend forscht 2014). Another example is *Curriculum Euler* in Western Switzerland, which offers mathematically gifted students aged 10–13 an accelerated path in mathematics in secondary schools, followed by an early introduction to university mathematics. This program is sponsored by private donors and the Federal Technical University of Lausanne (EPFL 2014). An honors experiential learning program called ‘City as Text’ was also applied in Switzerland, for a group of 16- and 17-year-old international baccalaureate students (see Smith 2012).

Generally speaking, talented secondary school students often have the possibility to get an early start at university level, as most universities have opened up to these talents in recent years (Müller-Opliger 2014). Talented students in vocational education and training (VET) have the opportunity to participate in SwissSkills competitions. The national foundation SwissSkills is supported by all professional organizations and institutions of VET.¹³

¹² See key links in Appendix 2 for details. Another example is parents’ association EHK, which organises Kinderuni camps.

¹³ SwissSkills is also the national qualification organization for WorldSkills Europe and WorldSkills International.

Box 14.5: Local Terminology

The word ‘honors’ is rarely used in Switzerland. Local terms used to refer to (programs for) talented and gifted students include:

- *Begabte/Begabtenförderung* (gifted/gifted education)
- *Enfants/étudiants surdoués* (gifted children/students)
- *Exzellenzprogramm* (excellence program)

Experts in gifted education are united, since 1999, in the *Netzwerk Begabungsförderung*, which tries to influence political decision makers and business leaders to invest more in educating talents. The network has put forward its ideas in a position paper, including a ‘wish list’ of instruments that could be implemented at the school level, the teaching level or as support measure (*Netzwerk Begabungsförderung 2013*). The needs of gifted children and youngsters are also included in teacher training. For example, there is an international master program to educate teachers in integrated gifted education and talent development at the Fachhochschule Nordwestschweiz. This is mainly aimed at primary and secondary education teachers. Until 2014, 290 teachers graduated from this course (Müller-Oppliger 2014, p. 98). Still, ‘Switzerland has a lack of research in gifted education because there is no chair or institute of a university specifically signed for gifted education and talent development’ (ibid).

Thus, quite an extensive infrastructure around ‘gifted children’ exists in Switzerland, including different programs in which higher education institutions participate. However, this has not yet developed towards provisions in higher education itself. Current efforts for talented students are centred on financial support measures (Box 14.5).

The Swiss Study Foundation (*Schweizerische Studienstiftung*), founded in 1991, is the most important body in this respect. It aims to support ‘excellent students and postgraduates at universities and technical colleges who due to their personality, creativity and intellectual skills, are in a position to contribute to science, business, culture and politics. The Foundation offers the students and postgraduates learning opportunities complementary to their studies, an individual mentoring and guidance scheme as well as financial support’ (Schweizerische Studienstiftung 2014). In 2012, 659 bachelor, master and Ph.D. students were in the program. Additional funding is available for talented students who continue into a Ph.D. program. The Swiss National Science Foundation is the most important organization supporting young scientists. It supports over 4,000 doctoral students and around 2,500 postdocs. The Swiss government also offers ‘excellence scholarships’ to international students wishing to pursue a Ph.D. in Switzerland.

14.3 New Developments

As the Swiss political and education systems are such patchworks, it is hard to generalize about possible future developments. However, developments on the subject of honors education can be expected. In September 2014, a large conference on

gifted education was held, organized through the *Netzwerk Begabungsförderung*. All important actors in the field attended and provisions for talented students in higher education was one of the main themes. According to organizer professor Müller-Oppliger, ‘the last two or three years it came up, we have to do something at universities. Something special, not only what students elect to do themselves. We have to do some programs to really serve this elite group that could achieve more. We hope we can bring a point in this discussion with the congress’.¹⁴ He adds that he is working on a pilot project with the Federal Technical University in Zurich and he expects programs will be developed soon: ‘In about three years we will have programs. I am very positive of that.’

14.4 Honors Programs per Higher Education Institution

At the time of writing, Swiss public universities and universities of applied sciences do not have honors programs. A recent overview of gifted education measures throughout the Swiss education system (Müller-Oppliger 2014) did not find programs in higher education.¹⁵ Most of the public higher education institutions do have some sort of scholarship program. This is very relevant, as tuition fees in Switzerland can be quite high, as shown in Table 14.1. The ETH Zürich for example offers an Excellence Scholarship & Opportunity Programme, which covers the full study and living costs during a student’s master degree program. One of the prerequisites is that ‘students must belong to the best 10 percent’ of their bachelor program (based on grades, see ETH Zürich 2014).

In Table 14.1, Swiss universities and universities of applied sciences are shown, sorted by size measured in student numbers.

This concludes our overview of the situation in Switzerland and also of all the German-speaking countries. We have found a variety of programs in Germany and some programs that are similar in set-up in Austria. In Switzerland, chances are honors education will be established soon.

In the German-speaking countries, a strong individual focus is found in its approach towards excellence. The role of foundations and of the private sector are interesting developments, not seen as strongly in the other clusters of countries.

This also concludes our individual country chapters. In the next part, we will compare the countries systematically and make some concluding remarks.

¹⁴ Personal communication Victor Müller-Oppliger, February 2014. See Appendix 4 for a full interview.

¹⁵ In addition to Müller-Oppliger’s findings, websites of all universities were searched with keywords to find any honors programs and local researchers were asked if honors programs are present. None were found. Most of this research was carried out by honors alumnus Annemarie van de Vijssel.

Table 14.1 Universities and universities of applied sciences in Switzerland

Higher education institution	Language	No of students ^a	Tuition fee (Swiss francs) ^b	Webpage
<i>Tier-one universities</i>				
University of Zürich	German	26,400	1,538	Unizh.ch
Swiss Federal Institute of Technology Zürich	German (conf)	17,800	1,288	Ethz.ch
University of Bern	German	17,000	1,568	Unibe.ch
University of Geneva	French	16,200	1,000	Unige.ch
University of Lausanne	French	13,000	1,160	Unil.ch
University of Basel	German	12,500	1,400	Unibas.ch
University of Fribourg	French/ German	9,900	1,310	Unifr.ch
Ecole Polytechnique Federale de Lausanne	French (conf)	9,400	1,266	Epfl.ch
University of Sankt Gallen	German	7,300	2,452	Unisg.ch
University of Neuchâtel	French	4,400	1,030	Unine.ch
Università della Svizzera italiana	Italian	2,900	4,000	Usi.ch
University of Luzern	German	2,400	1,620	Unilu.ch
<i>Universities of applied sciences (Fachhochschulen)</i>				
HES-SO – University of Applied Sciences of Western Switzerland	French	19,100	1,000	Hes-so.ch
Zürich Universities of Applied Sciences and Arts	German	16,800	1,440	Zfh.ch
University of Applied Sciences and Arts Northwestern Switzerland	German	9,400	1,400–1,600	Fhnw.ch
Bern University of Applied Sciences	German	6,700	1,500	Bfh.ch
University of Applied Sciences of Eastern Switzerland	German	6,600	1,000–1,920	Fho.ch
Lucerne University of Applied Sciences and Arts	German	5,500	1,600	Hslu.ch
University of Applied Sciences of Southern Switzerland	Italian	4,000	3,200	Supsi.ch
Kalaidos University of Applied Sciences ^c	German	1927	?	Kalaidos-fh.ch
Les Roches-Gruyère University of Applied Sciences ^c	French	437	?	Lrguas.ch
Total		209,664		

^aSources: CRUS (2013) and SERI (2013)^bFor Swiss students, in some cases the amount is higher for non-Swiss students (amount in Swiss francs, 1 franc is approximately 0.82 euros)^cPrivate institution, federally accredited. Student numbers from own website

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¹⁶ **Note:** Literature used to prepare this book is included on this list. Some of the entries are in local languages and have not been read completely by the researchers. Instead, they have been searched with keywords to retrieve relevant information.